

and the lengths of the sub-arms of the load-bearing parallelogram located within the vertical plane is selectively changeable.

6. (Amended) The system as claimed in Claim 1, characterized in that the load-bearing element (5) can be wound up flexibly and on a drum (6).

7. (Amended) The system as claimed in Claim 5, characterized in that the path-dependent signal (S) corresponds to an angle of rotation ( $\alpha$ ) of the drum (6) or to an angle by which in each case two sub-arms of the load-bearing parallelogram, which are connected to one another via a joint, move in relation to one another.

8. (Amended) The system as claimed in Claim 6, characterized in that the device (11) for generating the path-dependent signal (S) is an incremental encoder which is arranged coaxially with the drum (6), with the drive shaft of the drive (2), or with a deflecting disk or with a pivot axis of joints of a load-bearing parallelogram.

9. (Amended) The system as claimed in Claim 1, characterized in that the regulating circuit comprises a regulating member (12) which is operative in response to a deviation ( $\Delta S$ ) of the path-dependent signal (S) from a desired value (W), to emit to an actuating member (13) for the drive (2) a regulating signal (R) for the vertical (Z-Z) movement of the load-bearing element (5).

10. (Amended) The system as claimed in Claim 1, characterized by a controller for the vertical (Z-Z) movement of the load-bearing element (5), comprising a control member (14), a handling device (10) for the load-receiving device (7) and a device (15) for generating a force-dependent signal (P), which corresponds to a manipulation force (F) acting essentially vertically (Z-Z) on the handling device (10), the control member (14) being operative in response to a deviation ( $\Delta P$ ) of the force-dependent signal (P) from a desired value (V), to emit a control signal (T) for the drive (2) for the purpose of initiating a vertical (Z-Z) movement of the load-bearing element (5), said movement corresponding to the direction and the magnitude of the manipulation force (F).

11. (Amended) The system as claimed in claim 10, characterized in that the handling device (10) comprises at least two main parts (101, 102), of which the first part

(101) is connected in a fixed manner, to the load-bearing element (5) and to the load-receiving device (7); and the second part (102), on which the manipulation force (F) acts, is operative in response to the manipulation force to be moved relative to the first part (101); and the device (15) for generating the force-dependent signal (P) comprises at least one displacement sensor for sensing the change in position (AH) of the two parts (101, 102) relative to one another which occurs under the action of the manipulation force (F).

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12. (Amended) The system as claimed in claim 10, characterized by a setting member (16) which is connected to the drive (2) or the actuating member (13) thereof, and, in dependence on a signal (I, Q) corresponding to a load (9) or on the path-dependent signal (S), which corresponds to an essentially vertical (Z-Z) movement of the load-bearing element (5), changes the desired signal (V) for the force signal (P), which corresponds to the manipulation force (F) acting vertically (Z-Z) on the handling device (10), or changes the transmission behavior of the control member (14), which, in dependence on the deviation ( $\Delta P$ ) of the force signal (P) from the desired value (V), emits the control signal (T) for the drive (2), for the purpose of initiating a vertical (Z-Z) movement of the load-bearing element (5).

13. (Amended) The system as claimed in Claim 1, characterized by at least one fluidically acting brake (20) for the load-bearing element (5), having a cylinder-like housing (21), having a cover (22), which closes off the housing (21) on the top side, and a base plate (23), which closes off the housing (21) on the underside, and having a piston (24) which is guided such that it can be moved longitudinally in the housing (21) and subdivides the housing (21) into a sealed pressure chamber (25) for a pressure-generating fluid and into a spring chamber (26), the cover (22), base plate (23) and piston (24) each having a lead-through opening for the load-bearing element (5), there being arranged in the spring chamber (26), around the load-bearing element (5), at least two blocking elements (27) which are subjected to the action, on the one hand, of springs (28) and, on the other hand, of the piston (24) under the fluid-pressure action, the spring chamber (26) having a region (29) which tapers in the direction of the piston (24) such that the blocking elements (27), when they are

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*B,*  
located in a spring-side part of the region (29), in the presence of the fluid-pressure action, release the load-bearing element (5) and, when they are moved into a piston-side part of the region (29) under the action of the springs (28), in the absence of the fluid-pressure action, arrest the load-bearing element (5) in the housing (21).

*Sub B,1*  
*A*  
17. (Amended) The system as claimed in Claim 10, characterized by a safety controller for a manually operable load-receiving mechanism of the load-receiving device (10), the safety controller having a safety control member (17) which is connected to the device (11) for generating the path-dependent signal (S) and the device (15) for generating the force-dependent signal (P) and blocks the manual operation of the load-receiving mechanism and only releases it (signal B) when, in the presence of the force-dependent signal (P), there is no path-dependent signal (S) present.

18. (Amended) The system as claimed in Claim 17, characterized in that the regulating member (12) of the regulating circuit for load-balancing purposes and the control member (14) of the controller for the vertical (Z-Z) movement of the load-bearing element (5) and the safety control member (17) of the safety controller are constituent parts of a programmable controller (SPS).

19. (Amended) The system as claimed in claim 18, characterized in that the programmable controller (SPS) is arranged in the vicinity of a lifting subassembly (3) which accommodates the drive (2).

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22. (Amended) The system as claimed in Claim 1, characterized by a crane trolley which is guided on a running-rail structure (4) in at least one horizontal (X-X) direction and which connects to the load-bearing element (5).

23. (Amended) The system as claimed in Claim 22, characterized in that, for its movements in the horizontal direction (X-X and Y-Y), the load-lifting apparatus (1) is assigned at least one drive device which can be activated in dependence on a forced deflection of the load-bearing element (5), said deflection being based on the vertical alignment (Z-Z) which is established automatically as a result of gravitational force in the rest position.

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Please add the following new claim.

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~~26.~~ (New) The system as in Claim 2, wherein the drive comprises an  
electric servomotor.

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